

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD**

FOREST SITE PREPARATION

(Acre)

CODE 490

DEFINITION

Treating areas to improve site conditions for establishing a forest.

PURPOSES

- Encourage natural regeneration of desirable woody plants.
- Permit artificial establishment of woody plants.

CONDITIONS WHERE PRACTICE APPLIES

On all lands where establishment of woody plants is desired.

CRITERIA

General Criteria Applicable To All Purposes

The method, intensity and timing of site preparation will match the limitations of the site, equipment, and the requirements of the desired woody species.

An appropriate site preparation method will be chosen to protect any desirable vegetation.

Remaining slash and debris shall not create habitat for or harbor harmful levels of pests.

Remaining slash and debris shall not hinder needed equipment operations or create an undue fire hazard.

Erosion and/or runoff will be controlled.

Soil compaction and displacement will be minimized.

All chemicals will be applied in accordance with

label guidelines.

Comply with applicable federal, state and local laws and regulations during the installation, operation and maintenance of this practice.

The area will be protected from fire and destructive grazing.

Site Preparation Measures

Hand Site Preparation

Hand scalping the area to be planted is an effective method of site preparation, however it can be expensive. Sod should be removed from a 1-2 square foot area around the point where the specimen is to be planted.

Mechanical Site Preparation

Machine scalping, furrowing, and disking are all methods available for removing vines, slash, grass and weeds.

Machine Scalping - Sod should be removed from a 1-2 square foot area around the point where the specimen is to be planted

Furrowing – Furrowing can be used in area too rocky for planting machines. Do not use furrowing in areas of heavy soils and high water table. Plow two furrows on the contour in fall or winter.

Disking - A satisfactory disking job should expose mineral soil on about 60 percent of the area. This can be accomplished by leaving undisked strips between disked strips or rows.

Chemical Site Preparation

*Herbicides may be used to eliminate grass and weeds. **NOTE: WV NRCS does not make pesticide recommendations.** Landowners should be told to read product labels and follow*

Conservation practice standards are reviewed periodically, and updated if needed. To obtain the current version of this standard, contact the Natural Resources Conservation Service.

product specifications. Landowners may contact the West Virginia Division of Forestry or the WVU Cooperative Extension Service for pesticide recommendations.

Apply grass herbicides one month or more before planting to eliminate heavy sod.

Apply pre-emergence herbicides in strips or spots before April 15th to inhibit the germination of weed seeds already in the soil.

Contact herbicides should control herbaceous vegetation for one year, if applied after weed seeds have germinated.

Site Preparation for Natural Regeneration

Seed bearing trees - For natural seeding, seed-bearing trees are located on or next to the area, preferably along the windward side. Some acceptable species for natural seed source are white pine, pitch pine, shortleaf pine, Virginia pine, yellow poplar, white ash, and maple. See Table 1 for additional information on some species. Use of other species whose seed is dispersed by wind may be planned if needed to meet the objectives of the landowner. Expose mineral soil just prior to seedfall.

Table 1. Seed-bearing information by species

SPECIES	SEED BEARING AGE MINIMUM (YEARS)	SEED DISPERSAL DATES	INTERVAL BETWEEN LARGE SEED CROPS (YEARS)
White Pine	5-10	Aug – Sept	3-10
Pitch Pine	3-4	Fall*	4-9
Shortleaf Pine	5-20	Oct-Nov	3-10
Virginia Pine	5	Oct-Nov	1
Yellow Poplar	15-20	Oct-Nov	1
White Ash	20	Sept-Dec	3-5
Sugar Maple	30	Oct-Dec	3-7
Red Maple	4	April-July	1

* Many cones remain closed for several months or years.

Brush Cover – See Brush Management – 314.

Wet Areas/Soils – Consider planting in prepared ridges – See Bedding – 310.

Prescribed burning may be used as a method of site preparation in some instances. Landowners should contact the West Virginia Division of Forestry for assistance in planning and implementing prescribed burning activities.

CONSIDERATIONS

The site preparation method should be cost effective and protect cultural resources, wildlife habitat, threatened and endangered species, water resources, and identified unique areas.

Visual quality objectives should be considered when selecting site preparation methods.

Anticipate possible off-site effects and modify the site preparation design accordingly.

Consider personnel safety during site preparation activities.

PLANS AND SPECIFICATIONS

Plans will address method of site preparation, species, and protection required for desirable woody plants.

Specifications for applying this practice and protection of the site shall be prepared and recorded using approved specification sheets, job sheets, technical notes, and narrative statements in the conservation plan or other acceptable documentation.

The following will be identified (as appropriate):

Purpose of practice

Area affected

Field location / Plan view

Methods (type of site preparation, timing, practice specifics, etc.)

Operation and maintenance plan

OPERATION AND MAINTENANCE

Practice areas should be checked periodically to see if additional control of competition is needed to insure the survival of desired vegetation.

Repair erosion control measures as necessary to ensure proper function. Access by vehicles during site preparation or after (i.e., before adequate tree and shrub establishment occurs) should be controlled to minimize erosion, compaction and other site impacts.